COMMONWEALTH OF VIRGINIA
Department of Environmental Quality
Piedmont Regional Office

STATEMENT OF LEGAL AND FACTUAL BASIS

Hawkeye Manufacturing, Inc.
1500 Commerce Road, Richmond, Virginia
Permit No. (PRO52158)

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Hawkeye Manufacturing, Inc. has applied for a Title V Operating Permit for its Richmond facility. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

Engineer/Permit Contact:_____ Date:

Air Permit Manager:_____ Date:

Deputy Regional Director:_____ Date:

FACILITY INFORMATION

Permittee
Hawkeye Manufacturing, Inc.
1500 Commerce Road
Richmond, VA 23224

Facility
Hawkeye Manufacturing, Inc.
1500 Commerce Road
Richmond, VA 23224

County-Plant Identification Number: 51-760-00498

SOURCE DESCRIPTION

NAICS 326191 – Manufacturing of Plastics and Rubber Plumbing Fixtures.

Hawkeye Manufacturing, Inc. produces hot tubs. Acrylic sheets are formed into the desired shape using a vacuum process. The underside of the formed acrylic sheet is sprayed with two different resins mixed with fiberglass strand using a non-atomized spray gun and allowed to set. The hot tub shell is sanded, trimmed and drilled for jet installation. The jets and plumbing are then installed. A wooden frame is constructed and the hot tub assembly is mounted on the frame. The pumps and controls are installed. At this point, some models receive a coating of foam insulation. The tub is tested and either repaired or readied for sale.

The facility was a Title V major source of HAP when the MACT WWWW went into affect and therefore a Title V permit is being issued. This source is located in an attainment area for all pollutants. The facility is currently permitted under a Minor NSR Permit issued on December 1, 2006.

COMPLIANCE STATUS

A full compliance evaluation of this facility, including a site visit, has been conducted. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations, DEQ has issued a Consent Order to resolve a Notice of Violation alleging noncompliance with NSR permitting requirements and MACT requirements. As of the draft date for this permit, the Consent Order had not been signed but all that remained for resolution of the NOV was for Hawkeye Manufacturing to pay the civil penalty assessed.

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

The emissions units at this facility consist of the following:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Resin application							
RES1	Res1	Non atomized mechanical application of resin – 1st coat (2006)	138 lbs/hr	-	-	-	December 1, 2006 MACT WWWW
RES2	Res2	Non atomized mechanical application of resin – 2nd coat (2006)	207 lbs/hr	-	-	-	December 1, 2006 MACT WWWW
Miscellaneous Operations							
CC1	CC1	Transfer of calcium carbonate chips (2006)	137 lbs/hr	Dust collection system	DC1	PM/PM10	December 1, 2006
HS1	HS1	Hand sanding of fiberglass (2006)	-	Dust collection system	DC1	PM/PM10	December 1, 2006
WW1	S1	Woodworking for frame and siding (2006)	-	Dust collection system	DC1	PM/PM10	December 1, 2006

EMISSIONS INVENTORY

A copy of the 2006 annual emission update is attached. Emissions are summarized in the following tables.

2006 Actual Emissions

	2006 Criteria Pollutant Emission in Tons/Year				
Emission Unit	**VOC**	**CO**	**SO_2**	**PM_{10}**	**NO_x**
RES1	1.408	-	-	-	-
RES2	4.047	-	-	-	-
Total	5.455	-	-	-	-

2007 Facility Hazardous Air Pollutant Emissions

Pollutant	2006 Hazardous Air Pollutant Emission in Tons/Yr
Styrene	5.455

PROCESS REQUIREMENTS – (RES1 and RES2)

$$\frac{(\text{RES1 x EF}_{\text{RES1}}) + (\text{RES2 x EF}_{\text{RES2}})}{(\text{RES1} + \text{RES2})} < 88 \text{ lb/ton}$$

The following limitations from the December 1, 2006 NSR permit are in place to limit VOC emissions and to achieve the MACT standards (Subpart WWWW).

Limitations

Emission Controls – VOC and Organic HAP emissions from the resin molding (RES1 and RES2) shall be controlled by using a non-atomized mechanical resin applicator. A change in applicator type may require a permit to modify and operate.
(9 VAC 5-80-1180, 9 VAC 5-50-260 and Condition 2 of the December 1, 2006 permit)

Throughput - The throughput of resin to the first coat in the hot tub manufacturing process (RES1) shall not exceed 103,500 pounds per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-1180, Condition 6 of the December 1, 2006 permit)

Throughput - The throughput of resin to the second coat in the hot tub manufacturing process (RES2) shall not exceed 388,313 pounds per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-1180, Condition 7 of the December 1, 2006 permit)

Emission Factors – The equations in Table 1 of MACT Subpart WWWW shall be used to determine the VOC/Organic HAP emission factors used to calculate emissions of VOC/Organic HAPs from each of the resin application processes (RES1 and RES2). A record of the emission factor shall be kept for each type of resin used in the resin application processes (RES1 and RES2).
(9 VAC 5-60-100, 40 CFR 63.5799 and Condition 9 of the December 1, 2006 permit)

Process Emission Limits - Emissions from the resin application process (RES1 and RES2) shall not exceed the limits specified below:

Volatile Organic Compounds	7.0 lbs/hr	8.9 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 1, 2, 6, 7 and 9.
(9 VAC 5-80-1180, 9 VAC 5-50-260 and Condition 10 of the December 1, 2006 permit)

MACT Standard – The Organic HAP emission factor shall not exceed 88 lbs per ton of resin applied, calculated monthly on a 12-month rolling average. The permittee shall use the following equation to determine the average emission factor:

Where:
RES1 = throughput of resin, in tons, applied in 1st coat in previous 12 months
RES2 = throughput of resin, in tons, applied in 2nd coat in previous 12 months
EF_{RES1}=emission factor from Table 1(1)(c) of MACT WWWW in lb/ton for 1st coat
EF_{RES2}=emission factor from Table 1(1)(c) of MACT WWWW in lb/ton for 2nd coat

(9 VAC 5-60-100, 40 CFR 63.5805(c) and Condition 11 of the December 1, 2006 permit)

Recordkeeping

The permit includes requirements for maintaining records of all monitoring and testing required by the permit. These records include

On Site Records - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Piedmont Region. These records shall include, but are not limited to:

a. Annual throughput of resin applied in both the first coat (RES1) and second coat (RES2) to the hot tub manufacturing process, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

b. Monthly and annual emissions of VOC from the resin application processes (RES1 and RES2). The annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9 VAC 5-80-1180 and 9 VAC 5-50-50 and Condition 13 of the December 1, 2006 permit)

Testing

The permit does not require source tests. The Department and EPA has authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.
(9 VAC 5-50-30 and 9 VAC 5-80-110)

If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.
(9 VAC 5-80-110)

Streamlined Requirements

None

PROCESS REQUIREMENTS – (Miscellaneous Processes CC1, HS1, WW1))

The following conditions from the December 1, 2006 NSR permit put enforceable limits in place to control fugitive emissions.

Limitations

Emission Controls – Particulate matter emissions from the sanding of fiberglass reinforced resin (HS1), handling of calcium carbonate chips (CC1), and woodworking (WW1) shall be controlled by a dust collection system. The dust collection system shall be provided with adequate access for inspection and shall be in operation when the dust-generating processes (HS1, CC1, and WW1) are in operation.
(9 VAC 5-80-1180, 9 VAC 5-50-260 and Condition 3 of the December 1, 2006 permit)

Visible Emission Limit - Visible emissions from the dust collection system vent shall not exceed 10 percent opacity.
(9 VAC 5-80-1180, 9 VAC 5-50-260 and Condition 12 of the December 1, 2006 permit)

Monitoring

The following monitoring requirement was added to the Title V permit to meet Part 70 requirements.

Dust Collection System - An annual internal inspection shall be conducted on the dust collection system by the permittee to ensure structural integrity.
(9 VAC 5-80-110)

Testing

The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.
(9 VAC 5-50-30 and 9 VAC 5-80-110)

If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.
(9 VAC 5-80-110)

Streamlined Requirements

None

FACILITY WIDE CONDITIONS

The following conditions from the December 1, 2006 NSR permit are part of the MACT WWWW requirements

Limitations

VOC Work Practice Standards – At all times the disposal of volatile organic compounds shall be accomplished by taking measures, to the extent practicable, consistent with air pollution control practices for minimizing emissions. Volatile organic compounds shall not be intentionally spilled, discarded in sewers which are not connected to a treatment plant, or stored in open containers, or handled in any other manner that would result in evaporation beyond that consistent with air pollution practices for minimizing emissions.
(9 VAC 5-50-20 F, 9 VAC 5-80-1180 and Condition 4 of the December 1, 2006 permit)

MACT Work Practice Standards – The following MACT standards must be followed:

a. Use mixer covers with no visible gaps present in the mixer covers, except that gaps of up to 1 inch are permissible around mixer shafts and any required instrumentation.

b. Close any mixer vents when actual mixing is occurring, except that venting is allowed during addition of materials, or as necessary prior to adding materials or opening the cover for safety.

c. Keep the mixer covers closed while actual mixing is occurring except when adding materials or changing covers to the mixing vessels.

(9 VAC 5-60-100,40 CFR 63.5805(c) and Condition 5 of the December 1, 2006 permit)

Requirements by Reference - Except where this permit is more restrictive than the applicable requirement, the MACT equipment as described in Condition 1 shall be operated in compliance with the requirements of 40 CFR 63, Subpart WWWW.
(9 VAC 5-80-1180, 9 VAC 5-60-90, 9 VAC 5-60-100 and Condition 8 of the December 1, 2006 permit)

Recordkeeping

The permit includes requirements for maintaining records of all monitoring and testing required by the permit. These records include

On Site Records - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Piedmont Region. These records shall include, but are not limited to:

a. Calculations showing the 12-month rolling average organic HAP emission limit does not exceed the standard in Condition 11.

b. Records of emission factors used for each resin formulation.

c. Material Safety Data Sheets (MSDS) or other vendor information as approved by DEQ showing VOC and HAP content of each resin, catalyst, solvent and cleaning solution used.

d. Scheduled and unscheduled maintenance and operator training.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(9 VAC 5-50-50, 9 VAC 5-80-110 and Condition 13 of December 1, 2006 Permit)

Testing

The permit does not require source tests. A table of test methods has been included in the permit if testing is performed. The Department and EPA has authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.
(9 VAC 5-50-30 and 9 VAC 5-80-110)

If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.
(9 VAC 5-80-110)

Reporting

The permit includes semi-annual MACT compliance status reporting requirements.

Notification of Initial Compliance – The permitee shall notify the Piedmont Regional Office of initial compliance with the organic HAP emissions standard as required in 40 CFR 63.5860 by demonstrating that they have met the appropriate organic HAP emissions limits for your open molding operation using the procedure in Condition 11 on a 12-month rolling average 1 year after the appropriate compliance date.
(9 VAC 5-60-90 and Condition 14 of the December 1, 2006 permit)

Notification of Initial Compliance – The permitee shall notify the Piedmont Regional Office of initial compliance with the work practice standard as required in 40 CFR 63.5860 by certifying that all cleaning materials, except styrene contained in closed systems, or materials used to clean cured resin from application equipment, contain no HAP.
(9 VAC 5-60-90 and Condition 15 of the December 1, 2006 permit)

Notification of Compliance Status – The permittee shall submit a notification of compliance status to the Piedmont Regional Office within 31 days after the end of each semi-annual period (July 31 for the January 1 through June 30 period and January 31 for the July 1 through December 31 period). The reports shall include:

a. Company name and address.

b. Statement by a responsible official certifying the truth, accuracy and completeness of the content of the report.

c. Date of the report and beginning and ending dates of the reporting period.

d. If there are no deviations from the organic HAP emission limitation (Condition 11) and there are no deviations from the requirements for work practice standards (Conditions 5 and 15), a statement that there were no deviations during the reporting period.

e. If there were deviations from the organic HAP emission limitation or the work practice standard, the compliance report must contain the following:

f. The total operating time of each affected source during the reporting period.

g. Information on the number, duration, and cause of deviations, as applicable, and the corrective action taken

h. If you have exceeded the 100 ton per year HAP emissions threshold.

One copy of the semi-annual report shall be submitted to the U.S. Environmental Protection Agency at the address below:

Associate Director
Office of Air Enforcement (3AP10)
U.S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029.

(9 VAC 5-50-50 and 9 VAC 5-80-1180 and Condition 16 of the December 1, 2006 permit)

GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110 that apply to all Federal-operating permitted sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

Comments on General Conditions

B. Permit Expiration

This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §2.1-20.01:2 and §10.1-1185 of the *Code of Virginia,* and the "Department of Environmental Quality Agency Policy Statement No. 3-2006".

F. Failure/Malfunction Reporting

Section 9 VAC 5-20-180 requires malfunction and excess emission reporting within four hours of discovery. Section 9 VAC 5-80-250 of the Title V regulations also requires malfunction reporting; however, reporting is required within two days. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to section 9 VAC 5-20-180 including Title V facilities. Section 9 VAC 5-80-250 is from the Title V regulations. Title V facilities are subject to both sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180 and 9 VAC 5-80-250. The report must be made within four daytime business hours of discovery of the malfunction.

J. Permit Modification

This general condition cites the sections that follow:
9 VAC 5-80-50. Applicability, Federal Operating Permit For Stationary Sources
9 VAC 5-80-190. Changes to Permits.
9 VAC 5-80-260. Enforcement.
9 VAC 5-80-1100. Applicability, Permits For New and Modified Stationary Sources
9 VAC 5-80-1605. Applicability, Permits For Major Stationary Sources and Modifications Located in Prevention of Significant Deterioration Areas
9 VAC 5-80-2000. Applicability, Permits for Major Stationary Sources and Major Modifications Locating in Nonattainment Areas

U. Malfunction as an Affirmative Defense

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in sections 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in General Condition U and General Condition F. For further explanation see the comments on general condition F.

Y. Asbestos Requirements

The Virginia Department of Labor and Industry under Section 40.1-51.20 of the Code of Virginia also holds authority to enforce 40 CFR 61 Subpart M, National Emission Standards for Asbestos.

FUTURE APPLICABLE REQUIREMENTS

None

INAPPLICABLE REQUIREMENTS

Flexible Foam Fabrication (MACT subparts III, MMMMM, and OOOOOO) do not apply to rigid foam insulation.

Plastic Parts Surface Coating (MACT subpart PPPP) does not apply to facilities that are subject to MACT WWWW.

Stationary Compression Ignition Internal Combustion Engines (NSPS subpart IIII) does not apply to engines manufactured before April 1, 2006.

INSIGNIFICANT EMISSION UNITS

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Insignificant emission units include the following:

Emission Unit No.	Emission Unit Description	Citation	Pollutants Emitted	Rated Capacity
CS1	Transfer of chopped strand	9 VAC 5-80-720 B	PM/PM10	186 lbs/hr
F1	Spray application of foam insulation	9 VAC 5-80-720 B	Methylene Diphenyl diisocyanate	13 lb/hr
GEN1	European Testing Generator	9 VAC 5-80-720 A 46	NOx, CO, PM	100 kW
WWC	Staining of Wood Frames	9 VAC 5-80-720 B	VOC	1 gal/day
SH	Small NG Space heaters	9 VAC 5-80-720 C 2	NOx, CO	1mmBtu/hr

[1]The citation criteria for insignificant activities are as follows:
9 VAC 5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application
9 VAC 5-80-720 B - Insignificant due to emission levels
9 VAC 5-80-720 C - Insignificant due to size or production rate

CONFIDENTIAL INFORMATION

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

PUBLIC PARTICIPATION

The proposed permit was placed in public notice in the Richmond Times-Dispatch from March 10 to April 8, 2008. The permit underwent concurrent review by EPA. The EPA review period ended on April 23, 2008. No comments were received in this office during the Public Comment Period.